

ABSTRACT OF THE DISCLOSURE

The performance of an anion exchange resin is evaluated on-line by measuring inorganic carbonic acid concentrations at the inlet and at the outlet of an ion exchange resin vessel (such as a demineralizer vessel) of an ion exchange apparatus such as a condensate water demineralization system. Moreover, an MTC (Mass Transfer Coefficient) with respect to the inorganic carbonic acid is calculated and the dynamic performance and/or degree of degradation of the anion exchange resin are evaluated. The degree of degradation of the anion exchange resin is evaluated from the MTC and the replacement timing, lifetime, and throughput capacity for the anion exchange resin are judged.